 Number Sense \& Sensibility

2 Memorize or Not 2 Memorize That is the Question

Friday, March 15, 2024-7:45 A.M. to 2:35 P.M. at SUNY Old Westbury, Campus Center

LIMAÇON, designed for mathematics educators from primary through university level, provides opportunities for professional interactions and offers a forum for the exchange of concerns, innovative ideas, and achievable goals. This year's conference theme is Number Sense \& Sensibility.
The keynote address will be given by Kevin Dykema, the President of the National Council of Teachers of Mathematics (NCTM)
Learn how to help students develop number sense and find out why this is so important at every stage of a child's development. Children should be able to visualize and discuss freely the meaning of numbers. They should be encouraged to compute basic operations mentally and acquire skills involving approximation. Discover ways to assist students in grades K-college to develop a sense of reasonableness to their answers in mathematical questions.

| Session A (10:30-11:20) | S | S | Session D (1:45-2:35) |
| :---: | :---: | :---: | :---: |
| 1. Jumpstart Grades $K$ and 1 Christine Lofaro/ Cuthbertson | 14. Jumpstart Grades 2 and 3 Leticia Cuthbertson/Lofaro | 22. Is Math Really Real Marilyn DePietto | 30. Numberblocks \& Thinking Kristin Hanley |
| 2. 1-digit Long Division Frank Gardella | 15. Culturally Relevant Math Irina Lyublinskay | 23. Math Riddles/Understanding Ronni David/William Farber | 31. Building Collaboration Kristin Gray |
| Jennifer Kling/Bob S | 16. Math Olympiad Problems Jim Matthe | 24. What is Mathematics <br> Lidia Gonzalez | 32. Algebra Tiles/Understanding Jocelyn Dunnack |
| 4. Strategies for Prob-Solving Irina Lyublinskaya | 17. Context Matters <br> Natasha Murr | 5. Remove Angst from Algebra Michael Daly-Jones | 33. Discussion Protocols in Math Benjamin Allen/Abdullah Chaudry |
| 5. Chat GPT - Instruction Peter S | $18$ | 26. The Art of Construction Pamela Marder | 34. Student-Centered Learning Christopher O'Sullivan/Colorundo |
| 6. Ideas for Differentiation Dianna Shimansky | 19. Composition of Functions Tom Beati | 27. History of Math/Cultures Brian Evans | 35. What your Calculator Can Do Dana Morse |
| 7. Engaging Pupils: 3Joseph | Frank Gardella/Jaclyn Greco | Andrew Burnett | 36. Build a Successful Classroom Emil Stewart |
| 8. Math Course for Humanities Jim Matthews | 21. NYSED Update <br> Andrea Fao | Toni Gamils | 37. The Math in Music Betty Berbari/Peter Ikeler |
| 9. Clinometers for Trig Sharon Whitton | 7:45-8:30 CHECK-IN, CONTINENTAL BREAKFAST <br> 8:45-9:15 INTRO by L.I. Mathematics Conference Board and <br> 9:15-10:15 (r. Jong Pil Lee Scholarship Awardees <br> 10:30-2:35 SESSIONS A-D see schedule (all presentations held <br> in the New Academic Building) <br>  Sealed Box LUNCHEON during either session B or C <br> $7: 45-1: 45$ <br> EXHIBITOR BOOTHS AVAILABLE  |  | 38. Modern Manufacturing on LI <br> Ali Laderian |
| 10. Find a Rule/Quick Puzzles Jonathan Halabi |  |  | 39. Regression/Rubber Chickens Marilyn DePietto |
| 11. Culturally Relevant Educ. Kevin Anderson |  |  | 40. Special Ed Strategies Sarah Konovitch |
| 12. First Year Teaching Job Paul Pelech |  |  | 41. Culturally Relevant Math Toni Gamils |
| 13. Neuroscience of Math Anthony Murray |  |  | 42. Shifting Math Beliefs Lidia Gonzalez |

## SESSION A 10:30-- 11:20 (Select three sessions from numbers 1-13)

1. Jumpstart Your Kindergarten and First Grade Math Class! Christine Lofaro/Leticia Cuthbertson (K-2) Huntington School District Participants will be actively engaged in several fun and engaging math activities that can be used the very next day. Get ready to talk the math, as workshop participants will participate in math routines that will be presented.
2. Teaching of 1-digit long division: No 'guzintas' Needed Frank Gardella (3-5)

Hunter College The workshop will focus on how the use of Base 10 materials for teaching 'long division' by a 1-digit divisor can lead directly to the algorithm as a recording device for the work. No need for saying: " 3 goes into 45 ."
3. Computational Thinking 2 Build Inductive/Deductive Reason Jennifer Kling/Bob Sun (3-8) First in Math Computational Thinking allows children to decompose large problems into small manageable chunks. The coding languages of today may be obsolete by next year. The habits of mind we teach children will support them forever.
4. Strategies for Improving Mathematics Problem-Solving Irina Lyublinskaya (6-8) Teachers College, Columbia University In this interactive session participants will learn about several research-based strategies that address the challenge of improving mathematical problem solving in middle school.
5. ChatGPT and How it Can Help Improve Instruction.

Peter Santoro (6-12)
Garden City High School (Ret) In this workshop we will explore ways that ChatGPT can help teachers make up for the "covid deficits." In addition, we will explore ways in which ChatGPT can help ignite our students' curiosity.
6. Practical Ideas for Differentiation Dianna Shimansky (6-12) West Hempstead Secondary School This session will offer practical ideas to meet the needs of all learners. Participants will walk away with strategies to integrate into any math course.
7. Engaging Students in Mathematics using 3-Act-Task Joseph Cangemi (6-12) West Hempstead Secondary School 3-Act-Task is a free K-12 mathematics resource that promotes logistic and strategic thinking through learning mathematic concepts in 3 acts-opening, middle, and closing-through real world scenarios. It's a game changer!
8. A Unique Math Course for Humanities Oriented Students Jim Matthews (9-12)

Siena College Do you have college bound students that won't be majoring in STEM? We'll describe an engaging university-in-the-high-school mathematics course that will satisfy college general-education requirements and that students find engaging.
9. Using Clinometers for Introducing Trigonometry Sharon Whitton (9-12)

Hofstra University
Participants will build and use clinometers to discover the heights of distant objects and determine latitudes of locations on earth. These activities will serve to develop students' understanding of trigonometry and its applications.
10. Fallible Friends \& Find the Rule - Quick Classroom Puzzles Jonathan Halabi (9-12) HS of American Studies (Lehman College) (Ret) Here's two motivating activities - for AFTER the lesson. Find the Rule: quick, engaging logical number game. Fallible Friends: engaging logical reasoning puzzle. Participants will receive samples of both activities, and ideas for making more.
11. Culturally Relevant Education for ELL/Bilingual Math Class Kevin Anderson (9-12) Uniondale High School The workshop is designed to help teachers/educators teach culturally relevant high school mathematics to ELL/Bilingual students. It will illustrate how to design lessons, group work and assignments that infuses the students culture in math
12. You got your first Teaching Job - Now What?!?! Paul Pelech (Pre-Service) Westbury High School

This hands-on session will give participants tips to surviving their first year, earning tenure and being successful in the first few years of teaching. A great session for pre-service and non-tenured teachers!
13. Neuroscience of Math Anthony Murray (General)

Freeport Public Schools
This workshop will explore the cognitive processes and brain mechanisms involved in mathematical thinking and problem-solving.

## SESSION B 11:35-12:25 (Select three sessions from numbers 14-21)

14. Jumpstart Your Second and Third Grade Math Class! Leticia Cuthbertson/Christine Lofaro (2-4) Huntington School District Participants will be actively engaged in several fun and engaging math activities that can be used the very next day. Get ready to talk the math, as workshop participants will participate in math routines that will be presented.
15. Making Math Culturally Relevant for our Students Trina Lyublinskaya (K-5) Teachers College, Columbia University In this workshop we will discuss culturally relevant mathematical tasks-building actions and analyze examples of culturally relevant activities for elementary school students.
16. Building a Thinking Classroom with Math Olympiad Problems Jim Matthews (3-8)

Siena College In this session we will explore some great problems and share how the problems can be used to build a thinking classroom. We will also discuss how your students can participate in MOEMs.
17. Context Matters

Natasha Murray (6-8)
NYSAMS President
This workshop will explore ways to embed mathematical content into contexts that resonate with students by piquing their interest and heightening their engagement.
18. Mathematical Magic Show Michael Riccardo/Denise Depinto (6-College) Queens College, CUNY Who doesn't like magic tricks? Many magic tricks have a mathematical basis. The material in this workshop can serve as an enrichment for lessons, activities and homework or just for fun!
19. Sequences/Composition of Functions-Making the Connection Tom Beatini (9-College)

Math Consultant-Casio Let's examine representations of sequences and composition of functions. Problems that promote algebraic thinking, a deeper understanding of these topics, and limits that help students move from algebra to calculus will be discussed.
20. Triangles as an Alternative to Venn Diagrams

Frank Gardella/Jaclyn Greco (9-College)
Hunter College
The use of triangles in dealing with sets offers an alternative to Venn diagrams. This workshop will focus on the use of triangles as descriptors for the intersection of 2 and 3 sets and describe uses of tetrahedrons for 4 sets
21. NYSED Update

Andrea Faoro (General) NYSED/Office of Standards \& Instruction
The math team in the Office of Standards and Instruction will present an update to the field including information from OSI, the Office of Educational Design and Technology, and the Office of State Assessment. Questions are welcome.

## 22. Is Math Really Real?

Marilyn DePietto (K-5)
Hofstra University
Educators will accompany me on a math walk with the purpose of having students look at the real world through a mathematical lens. We will develop ideas about numeracy and operations based on observations in our immediate surroundings.
23. Using Mathematical Riddles to Build Understanding Ronni David/William Farber (6-8)

Mercy College
Focus will be on written \& verbal communication as well as group interaction in a non-threatening mathematical environment. Outcomes are synchronous with standards involving application problems that encourage critical thinking \& reasoning.
24. What is Mathematics?

Lidia Gonzalez (6-College)
York College, CUNY
We consider research on students' views of mathematics and mathematicians focusing on how these impact their learning/identity. We explore ways to strengthen students' math identity as they move towards seeing themselves as math people.
25. What is a Number? Taking the Angst out of Learning Algebra Michael Daly-Jones (6-College)

Suffolk Community College Some students see symbols such as x as letters. Variables and variable expressions represent numbers and, therefore, ARE numbers. Convincing students of this fact helps them to learn algebra and beyond.
26. The Art of Construction

Pamela Marder (9-12)
West Hempstead Secondary School
This workshop will demonstrate how students can use their knowledge of constructions to create their own original artwork.
27. History of Mathematics in the Classroom: A Focus on Cultures Brian Evans (9-College)

Pace University
This presentation gives a brief overview of the history of mathematics through the contributions from various cultures. It provides ideas for using mathematics history to motivate students.
28. Great Things Happen for Students in the Thinking Classroom Andrew Burnett (General)

FA Day Middle School, MA When students stand in groups at whiteboards while working on a learning task they are more eager to learn and are more willing to discuss their thinking. Come see how to bring the Thinking Classroom to your classroom.
29. Collaboration is Key for All Students Toni Gamils (General) Teacher Center Central Westchester Educators can only expect students to learn how to work in groups by putting them in groups. Many students engaged in group work are still uncomfortable collaborating with others. Teaching students the skill of collaboration is KEY.

## SESSION D 1:45-2:35 (Select three sessions from numbers 30-41)

30. Leveraging the hit series Numberblocks with Thinking Tasks Kristin Hanley (K-5)

Clarkstown CSD Children start learning mathematical principles visually. Come see how teachers are using these free YouTube videos as launching points for in-depth thinking of number concepts from primary grades through upper elementary topics!
31.Building a Culture of Collaboration

Kristin Gray (K-5)
Amplify Collaboration is a key component in both student and teacher learning. In this session we will explore practices that engage students and teachers, while motivating them to share their ideas and listen to the ideas of others.
32. Using Algebra Tiles to Build Conceptual Understanding Jocelyn Dunnack (6-8)

CPM Educational Program Learn how algebra tiles make algebra a concrete, visual experience for students. You will explore the use of algebra tiles to create area and perimeter expressions, combine like terms, evaluate expressions, and write and solve equations.
33. Implementing discussion protocols in the math classroom Benjamin Allen/Abdullah Chaudry (6-8)

MS 137Q/NYC DOE Discussion protocols are valuable instructional routines that allow students to respond to each other's thinking. We will showcase a variety of discussion protocols that can be easily incorporated into your classroom practice.
34. Spice it Up! Student-Centered Learning and the New Normal O'Sullivan/Colorundo (6-12) Urban Assembly School of Business Nobody can disagree that the way we teach has changed dramatically over the past four years. Reimagine ways to engage students with your learning through writing-based assignments, PBATs, problems around the room, stations, and even more!
35. Things You Didn't Know Your Calculator Could Do! Dana Morse (6-12)

Texas Instruments Go beyond calculations. We will explore the hidden features of the TI graphing calculators to help your students build math confidence. Learn about catalog help, apps acceptable for NYS Regents exams, piecewise functions, coding and more.
36. How to Build a Successful Math Classroom

Emil Stewart (6-12)
East Islip High School
What is a successful classroom? Participants will discuss everything from how to build rapport with students, how to make math come alive, how to scaffold lessons for building understanding.
37. The Math in Music

Betty Berbari/Peter Ikeler (6-College)
SUNY Old Westbury
The Math in Music will show participants how to read basic music. We will review time signature, types of musical notes and rhythm. An instrument will be played to illustrate how math and music are related.
38. The Prospect of Modern Manufacturing in Long Island

Ali Laderian (6-College)
Suffolk Community College This is a review of modern manufacturing in Long Island and its future for younger generation and how they can obtain the right knowledge to be a part of this exciting field. The relation between manufacturing and math will be discussed.
39. Regression and Rubber Chickens

Marilyn DePietto (9-12)
Hofstra University
Hands-on classroom activity: Teachers collect data on the distance they stretch rubber chickens and the distance the chickens fly. Using TI-84s they will find a regression model that best fits their data and answer questions using the model.
40. Strategies for Supporting Special Education Students in Math Sarah Konovitch (9-12) West Hempstead Secondary School This workshop will explore different activities and strategies to help support special education students in the math classroom. We will discuss practical tips for working as a co-teacher and offer resources to help within your own classes.
41. Creating Culturally Relevant Math Tasks Toni Gamils (General) Teacher Center Central Westchester Creating culturally relevant tasks is not as daunting as you might think. Start at the beginning and work your way up. Each step will give you the time and space you need to learn, grow, adapt, and respond to the needs of your students.
42. Shifting Student Beliefs about Mathematics

Lidia Gonzalez (General)
York College, CUNY
We consider commonly held yet harmful beliefs about mathematics (ie. that it is all about numbers/equations, and is neutral/apolitical) and share practical ways teachers can challenge these shifting students' perceptions of the subject.

## Directions to SUNY College at Old Westbury

BY CAR: SUNY College at Old Westbury is located immediately north of the Long Island Expressway (495) in the Village of Old Westbury, Long Island, approximately 30 miles east of New York City.
The main entrance to the College is located on the west side of Route 107 approximately one-half mile north of Jericho Turnpike.

BY TRAIN: The Long Island Railroad stops at the Hicksville station. Train schedule and route information are available from the LIRR, 516-822-LIRR. Bus service is available to and from the Hicksville station Monday through Friday. Bus schedule information may be obtained from the MTA Info Center, 516-222-1000.
BY BUS: The College is accessible by bus via MTA bus route N20, which travels between Main Street, Flushing and the Hicksville railroad station along Northern Boulevard and Route 107. The bus connects with other MTA buses at various connecting points along Northern Boulevard and elsewhere. Call the MTA Information Center (number above) for schedule and additional route information.


To register go to:
When using a GPS device please make sure that it takes you to the main entrance off route 107.

## Cost of Conference

Fee includes Continental Breakfast and Luncheon

Payment Options: Choose one that applies
$\$ 65$ for members of one of the following ATMNYC, NCAMS, or NCMTA
\$75 for nonmembers
$\mathbf{\$ 3 0}$ for full-time students
There is a $\$ 10$ additional fee to sign up on the day of the Conference
At the website you can select your preferred payment method

Credit Card via Eventbrite
School Purchase Order (PO)

## Lunch Menu

\#51 Chef Salad (no ham)
\#52 Vegan/gluten free platter baby spinach with roasted vegetables)
\#53 Tuna Salad
\#54 Egg Salad
\#55 Chicken Salad
All meals will be served in a sealed lunch box along with additional condiments

